

Summy Shrestha

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Summary

Dynamic and results-driven Analytical Chemist with an MSc in Chemistry from SIUE and a background in pharmaceutical science from Kathmandu University. Demonstrated expertise in advanced analytical techniques including HPLC, LC-MS/MS, GCMS/FID, Headspace GCMS, NMR, micro-FTIR, SEM-EDS, RAMAN and UV/Vis spectroscopy. Proven research capabilities in metabolomic studies and pharmaceutical formulation evaluation. Proficient in extractable and leachable products in medical devices, ensuring compliance with cGMP, ICH, ISO and FDA guidelines. Adept at mass spectrometry data analysis/interpretation, method optimization and trouble shooting. Skilled in software such as LIMS, Empower, Lab Solutions, Mass Hunter, Open labs, Chem Station, and MS Office. Committed to continuous learning, innovation and contributing to cutting-edge research in bioanalytical science.

Education

MSc Chemistry | Southern Illinois University Edwardsville (SIUE) | Edwardsville, IL | May 2023

Focus: LCMS/MS Method development and optimization for herbicides

Bachelors in Pharmaceutical Sciences | Kathmandu University | Dhulikhel, Nepal | October 2018

Focus: Synthesis of polymer matrix for transdermal patches

Professional Experience

Analytical Chemist | Eurofins EAG Scientific Testing Laboratories | Maryland Heights, MO | June 2023-June 24

- Managed a portfolio of sample analysis projects, ensuring timelines are met
- Conducted GCMS/FID analysis of extractable and leachable in medical devices, ensuring cGMP compliance
- Performed GCMS/FID and LCMS/MS data analysis and interpretation
- Trained lab technicians on GCMS/FID operations and data processing
- Handle particle ID characterization using various analytical techniques.
- Conducted routine calibration, maintenance of GCMS/LCMS along with troubleshooting and OQPQ to ensure accuracy and reliability.

Graduate Teaching Assistant | SIUE | Edwardsville, IL | August 2021-May 2023

- Supervise lab sections General Chemistry and Organic Chemistry
- Demonstrate wet lab techniques and trained students on instrumentation techniques
- Enforce safety measures and graded lab reports and exams

Quality Control Officer | National Healthcare Pvt. Ltd | Kathmandu, Nepal | August 2019 – July 2021

- Conducted rigorous testing of raw materials, in-process materials and finished products to ensure compliance with GMP and ISO standards
- Performed method validation and optimization for analytical techniques such as HPLC and GCMS
- Prepared and reviewed detailed QC documentation, including test results and deviation reports
- Ensured rigorous quality control for injectables, small volume parenteral and anti-epileptic medications
- Conducted routine calibration and maintenance of laboratory equipment to ensure accuracy and reliability.
- Performed stability study and monitored the shelf life of products.

Product Specialist | National Healthcare Pvt. Ltd | Kathmandu, Nepal | Nov 2018- July 2019

- Trained Medical Representatives and Medical Sales officers.
- Researched and analyzed 10+ drug developments in field of neurology, hepatology, and nephrology.

- Trained in drug marketing, customer care, and correspondence to conduct CAPA (Corrective and Preventive Analysis) for existing products.
- Developed brand name, marketing, and launching strategies for new pharmaceutical products for the company.

Pharmaceutical Analyst Intern| Vega Pharmaceuticals Pvt. Ltd| Kathmandu, Nepal| Aug 2018- Oct 2018

- Performed qualitative and quantitative analysis of different raw materials, in process materials and finished products by using different instruments: Karl Fisher Titrator, UV visible Spectrophotometer, Dissolution Test Apparatus, Viscometer, and HPLC

Research Experience

SIUE| Edwardsville, IL| 2021-2023

Advisor: Dr. Kevin R. Tucker

Metabolomic Localization and Quantitation of Herbicides in *Vigna radiata* using LC-MS/MS

- Perform optimization of Shimadzu Mass Spectrometry 8060 NX parameters using electrospray ionization (ESI) for analysis of different herbicides including Atrazine, Diuron, Glyphosate, Isoproturon and Tribenuron-Methyl)
- Optimized method for detection of low concentration of different Herbicides using LC/MS/MS utilizing ESI.
- Studied fragmentation pattern of different Herbicides utilizing ESI as ionization source.

Kathmandu University | Dhulikhel, Nepal| 2014-2018

Advisor: Dr. Uttam Budhathoki

Formulation and In-Vitro Evaluation of Aspirin Transdermal patches using Matrix System.

- Formulated Aspirin Transdermal patches using different polymer matrix.
- Characterized the physico-chemical properties of the formulated patches.
- Studied the release pattern of the Aspirin from the formulated transdermal patches.

Honors and Activities

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| • Graduate Teaching Assistantship at SIUE | Fall 2021- Spring 2023 |
| • Awarded SIUE Research Grant for Graduate Students | Spring 2022 |
| • Enrichment Award, Chicago Mass Spec Day | July 15, 2022 |
| • Research Poster Presentations at Chicago MASS Spec Day, Probst Lecture in SIUE and PittCon | |